



USER'S GUIDE

PASSION





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1. General Information

Fortec Star's Passion High Definition Satellite Receiver allows you to view a variety of programs provided via satellite. The Set-top-box (STB) is fully compliant with MPEG2 and MPEG4 H.264, based on DVB S and DVBS2 transmission standards for in-home reception of digital satellite services including High Definition digital television. This manual describes how to setup and operate your Fortec Star STB. Only qualified personnel should handle any problems beyond the scope of this manual.

2. Main Features

- Fully compliant with DVB S2 and DVB S
- MPEG-2 VIDEO (MP@ML)
- MPEG4 H.264
- HDMI Supported
- High definition and Standard definition compliant
- Multiple output resolution modes: 1080i, 720p, 576p, 576i
- Software Upgrade through USB
- USB Host Connection
- SCPC & MCPC from C/Ku-band satellite
- Channel Memory: 10,000 (TV: 7000 CH, RADIO: 3,000CH)
- DiSEqC 1.0 & 1.2, USALS control technology
- Teletext and Subtitle supported through VBI & OSD
- Last 5 channels recall function
- Variable aspect ratio (4:3, 16:9)
- 7 Favorite Lists & Parental Lock function
- Multi-Language OSD
- Electronic Program Guide (EPG)
- 16 bit True-color graphic menu
- MOSAIC function
- Zoom(x2, x4, x8, x16) function
- Sleep timer function
- 10 event timer
- Sat/Channel find function
- Utility function
- 10 digit VFD (Vacuum Fluorescent Display)
- Power Switch on Front panel

3. For Your Protection

WARNING

To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture. Do not open the cabinet; dangerous high voltage is present. Refer servicing to qualified personnel only. Please note that the STB will be isolated completely from the main power supply only after setting the mechanical power switch to OFF on the front panel of the STB.

FCC WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult a dealer or an experienced radio/TV technician for help.

To meet FCC requirements, shielded cables are required to connect the device to a personal computer or other Class B certified device.

CAUTION

To prevent fire, shock hazard, or annoying interference, use only the recommended accessories. To prevent electric shock, do not use the plug with an extension cord, receptacle, or other outlet unless the blades/pins can be fully inserted to prevent blade/pin exposure.

To reduce the risk of electric shock, do not remove the unit cover or back. There are no serviceable parts inside. Refer servicing to qualified personnel only.

CLOSED CAPTIONING

This television receiver provides display of television closed captioning in accordance with Part 15.119 of the FCC rules.



CAUTION

TO PREVENT FIRE OR SHOCK HAZARD DO NOT EXPOSE THE SET TO RAIN OR MOISTURE OR EQUIVALENT.

THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS OR EQUIVALENT.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE THE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER ANY SERVICING TO QUALIFIED SERVICE PERSONNEL.

THE SOCKET-OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment, and invalids the manufacturer warranty.



This symbol is intended to alert the user to the presence of non-insulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute risk of fire or electric shock.



This symbol is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying this product.



IMPORTANT SAFETY INFORMATION

1. READ THESE INSTRUCTIONS.
2. KEEP THESE INSTRUCTIONS.
3. HEED ALL WARNINGS.
4. FOLLOW ALL INSTRUCTIONS.
5. DO NOT USE THIS APPARATUS NEAR WATER.
6. CLEAN ONLY WITH A DRY CLOTH.
7. DO NOT BLOCK ANY OF THE VENTILATION OPENINGS.

Install in accordance with the manufacturer's instructions.

8. DO NOT INSTALL NEAR ANY HEAT SOURCES such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. DO NOT DEFEAT THE SAFETY PURPOSE OF THE POLARIZED OR GROUNDING-TYPE PLUG USED ON NORTH AMERICAN MODELS. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. PROTECT THE POWER CORD from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.
12. USE ONLY WITH A CART, STAND, TRIPOD, BRACKET, OR TABLE specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. UNPLUG THIS APPARATUS DURING LIGHTNING STORMS, or when unused for long periods of time.
14. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



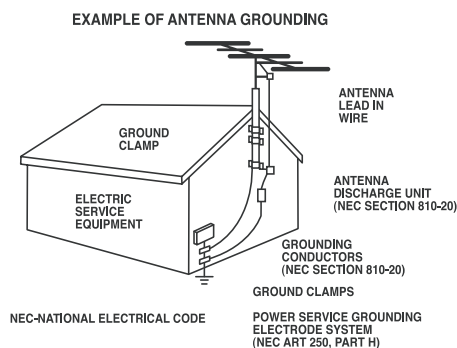
**Portable Cart
Warning**



IMPORTANT SAFETY INFORMATION

POWER SOURCES - This unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.

OUTDOOR ANTENNA GROUNDING - If an outside antenna or cable system is connected to the unit, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See figure.



POWER LINES - An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.

OVERLOADING - Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.

OBJECTS AND LIQUIDS - Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquids of any kind onto the unit. Should spillage occur, unplug the unit and have it checked by a technician before use.

SERVICING - Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



REPLACEMENT PARTS - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or those having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

SAFETY CHECK - Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in safe operating order.

PRECAUTIONS

- PLEASE READ THIS MANUAL CAREFULLY BEFORE USING THE RECEIVER.
- DO NOT OPERATE THE RECEIVER IN AN UNSTABLE CONDITION SUCH AS HIGH HUMIDITY, HEATING, AND MOISTURE.
- STOP THE OPERATION IMMEDIATELY IF ANY LIQUID OR SOLID OBJECT SHOULD FALL INTO THE RECEIVER.
- DO NOT TOUCH OR OPERATE THE RECEIVER WITH WET HANDS.
- OPERATE THE RECEIVER ONLY WITH PROPER POWER SOURCE MARKED ON THE RECEIVER.
- UNPLUG THE RECEIVER POWER CORD BY GRIPPING THE POWER PLUG, NOT THE CORD.
- DO NOT OPEN THE RECEIVER COVER AND TRY FIX IT BY YOURSELF. ONLY QUALIFIED SERVICE PERSONNEL ARE ALLOWED TO MAKE REPAIRS.
- PLEASE UNPLUG THE POWER CABLE IF IT IS UNUSED FOR A LONG TIME OR DURING THE BAD WETHER SUCH AS LIGHTNING AND THUNDER STROM.
- DO NOT STACK ANY HEAVY ITEMS ON THE RECEIVER.
- DO NOT CONNECT OR MODIFY CABLES WHEN THE RECEIVER IS PLUGGED IN.

PRECAUTIONS

This Set Top Box (STB) has been manufactured to meet international safety standards, including those set by the FCC and Underwriters Laboratories (cUL). Please read the following safety precautions carefully before handling the STB.

POWER REQUIRED	North American models - Use only 100 -120V AC 60Hz. Europe / Middle East models - Use 90 - 240V AC 50 / 60Hz
CABLE	Use standard certified cables to prevent any malfunction of the STB.
LOCATION	Locate the STB indoors. Locate STB away from potential hazards such as excessive moisture. STB should not be subjected to direct sunlight, excessive heat or power surges.
CLEANING	1. Always disconnect the STB power cord from the wall socket before cleaning it. 2. Use a lightly dampened cloth to clean the exterior of the STB. (Use no solvents.)
OVERLOADING	Do not overload wall outlets, extension cords or adapters. This can cause a fire or electrical shock.
VENTILATION	1. NEVER block ventilation slots of the receiver. 2. NEVER stand the STB on soft furnishings or carpets. 3. Ensure that a free airflow is maintained around the STB. 4. Do not use or store the STB where it is exposed to direct sunlight or near a heater. 5. NEVER stack other electronic equipment on top of the STB.
LIQUIDS	Keep liquids away from the STB.
SMALL OBJECTS	Coins or other small objects must be kept away from the STB. They can fall through ventilation slots of the STB and cause serious damage.
ATTACHMENTS	Do not use any attachments that are not recommended. These may cause hazards or damage the equipment.
LIGHTNING	The STB must remain connected at all times to the main power supply. However, Manufacturer's instructions for safeguarding other equipment connected to the STB, TV set, etc., should be followed during lightning storms.
SERVICING	1. Do not attempt to service this product yourself. 2. Refer all servicing to qualified service representatives.

4. ACCESSORIES

Please check if the following accessories are enclosed:

- Operating User Manual
- Remote Control Unit
- Batteries (AAA Type), quantity: 2.
- Power Cord
- HDMI cable

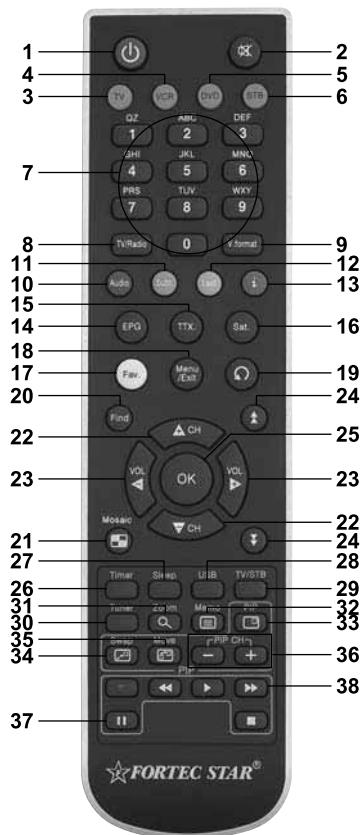
Note : If any of the accessories listed above are missing, please contact the local sales outlet where this product was initially purchased.



5. UNIVERSAL REMOTE CONTROL FUNCTIONS

1. Open the battery cover on the rear of the remote control.
2. Insert the two AAA batteries and ensure that the polarities (+ and -) are aligned correctly.
3. Replace the battery cover to the original position.
4. Replace the batteries simultaneously.
5. Dispose batteries based on the local environmental regulations.
6. All features in the receiver can be controlled with the following instructions.

Remote Control Unit Button Functions:



- 1. Power button:** Turns the receiver ON or to the Stand-By mode.
- 2. Mute (M):** Switches sound ON/OFF.
- 3. TV:** For operating the TV.
(This button must be programmed.)
- 4. VCR:** For operating the VCR.
(This button must be programmed.)
- 5. DVD:** For operating the DVD player.
(This button must be programmed.)
- 6. STB:** For operating this Set-Top Box.
- 7. Numeric Buttons (0~9):** Enters the channel number or values in the setup menu directly.
- 8. TV/Radio:** Switches between TV and Radio mode.
- 9. Option Key:** Display for special channel.
- 10. Audio:** Changes the audio mode for selecting a language and the audio output mode, such as mono (L), Left mono(R) and Stereo.
- 11. Subt.:** Displays DVB subtitles (On/Off).
- 12. Last:** Shows last 5 viewed TV or Radio channels.
- 13. Info (i):** Displays information about the channel and program.
- 14. EPG:** Displays the TV/Radio program guide.



- 15. TTX:** Displays Teletext by OSD.
- 16. Sat.:** Selects the satellite.
- 17. Fav.:** Displays the favorite channel list.
- 18. Menu/Exit:** Displays the main menu on the screen and returns to viewing the TV (Exit All).
- 19. Back (⏮):** Returns to previous status, one step back.
- 20. Find:** Quick search for finding a channel.
- 21. Mosaic (M):** Shows Multi-screen.
- 22. Up/Down:** Moves the cursor up/down in the menus, or changes channel to next or previous in viewing mode.
- 23. Left/Right:** Move the cursor left/right in the menus, or change the volume level in viewing mode.
- 24. Page Up/Down (⏮ ⏭):** Turns to the next or previous channel list.
- 25. OK:** Confirms a selection or displays the channel list while viewing a channel.
- 26. Timer:** Enters the timer menu.
- 27. Sleep:** Select the automatic turn off time.
- 28. USB:** Displays list of Music files in the USB memory stick.
- 29. TV/STB:** Switches between TV and Satellite mode.
- 30. Tuner (Only for Combo model):** Switches between Terrestrial and Satellite tuner.
- 31. Zoom (Z):** Zooms in on the current channel. The zooming scale changes each time the button is pressed. (x2 → x4 → x8 → x16 → normal.)
- 32. Memo:** Creates an event list or memorizes the selected day in the calendar. (Application as running change)
- 33. PIP (PIP):** Picture-in-Picture - Displays two channels on the screen simultaneously (channels must be from the same transponder.) (Application as running change)
- 34. Swap (SWP):** Switches between the main picture and sub picture in PIP mode. (Application as running change)
- 35. Move (MOV):** Moves the location of the sub picture in PIP mode. (Application as running change)
- 36. PIP CH (+/-):** Changes the channel in the sub picture window in PIP mode. (Application as running change)
- 37. Pause (⏮ ⏭):** Pauses the current live picture.
- 38. REC (●), FR(◀), PLAY(▶), FF(▶▶), STOP(■):** Only operate in DVD or VCR mode.

How to program the Universal Remote Control

1. Manual Setting:

1. Turn on the device (TV/VCR/DVD).
2. Press OK button and the device button (TV/VCR/DVD) simultaneously for more than 2 seconds.
3. Press the 3 digit code for your device brand.
4. If there is more than one code for your brand, please check all possible codes until the device turns off.
5. If the device turns off, it should be programmed.
6. Press the device button again to turn on the device.
7. Check the Universal Remote Control to ensure that it is operating the device.

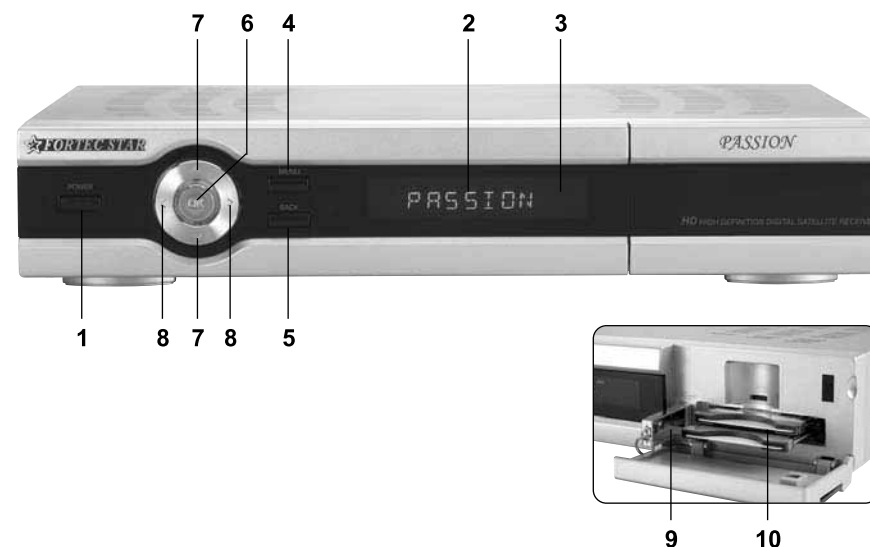
2. Auto Setting:

1. Turn on the device (TV/VCR/DVD).
2. Press the OK button and the device button (TV/VCR/DVD) for more than 2 second
3. Press CH + button and keep it pressed until the device is turned off.
4. If the device is turned off, please press the device button.
5. Check the Universal Remote Control in operation and check if all other buttons are working.

Note. Please refer to device code as attachment

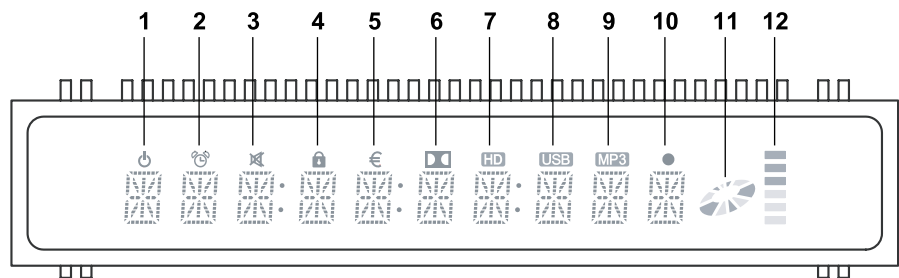
6. Front and Rear Panel Controls

6.1 Front Panel



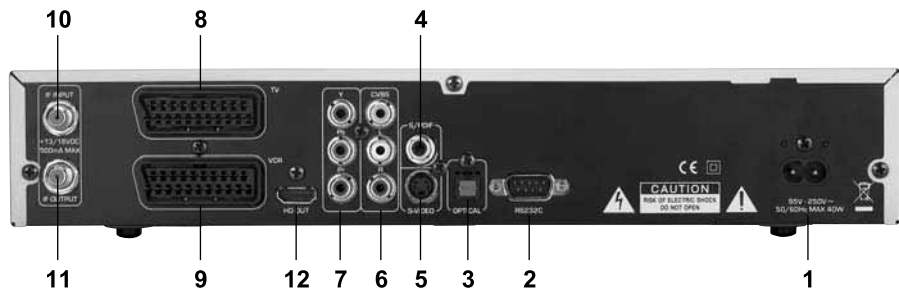
- 1. Power Button:** Turns the receiver ON/OFF.
- 2. 10 Digit VFD Display:** Displays the current channel number, channel name or time.
- 3. IR Sensor:** Receives the Remote Control Unit signal.
- 4. Menu/Exit Button:** Displays the main menu on the screen and returns to viewing the TV (Exit All).
- 5. Back Button:** Returns to previous status.
- 6. OK Button:** Confirms selection and shows the TV/Radio screen.
- 7. Up/Down Buttons:** Moves the cursor up/down in the menus. Changes channel to next or previous in viewing mode.
- 8. Left/Right Buttons:** Changes the volume level or moves the cursor left/right in the menus.
- 9. USB Connection:** Connects a USB memory stick for software downloads and to play audio music files.
- 10. Conditional Access Module Slots (CAM):** 2 slots for common interface CAM.

6.2 Front Panel Display



1. Indicates Power ON/OFF.
2. Indicates sleep timer set.
3. Indicates mute mode.
4. Indicates locked channel.
5. Indicates scrambled channel.
6. Indicates Dolby Digital channel.
7. Indicates HD broadcasting channel.
8. Indicates USB connection.
9. Indicates MP3 play.
10. Indicates IR sensor.
11. Indicates operation status, such as channel search, software upgrade, etc.
12. Indicates signal/quality level.

6.3 Rear Panel Connections



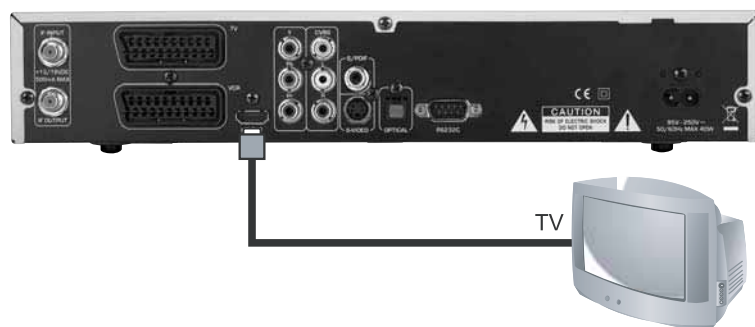
1. **AC Main Connection:** The input AC voltage range is 95V to 250V, 50/60Hz supply.
2. **RS-232 Data Interface:** Connection to a PC or other receiver for software update and channel list data transfer.
3. **Digital Audio Output (Optical):** Optical digital audio output for connection to a Home Theatre System with integrated audio digital decoder (Dolby Digital).
4. **SPDIF:** Digital audio output (Coaxial).
5. **S-Video Output:** Super Video output to TV.
6. **CVBS/Audio (L)/Audio (R):** Composite video, audio (L, R) output.
7. **Component Video Output (Y/Pb/Pr):** Y/Pb/Pr (Green, Blue, Red) connection to a TV or VCR that accepts HD component video input.
8. **SCART Connector (TV):** Connection for audio and video signals to the TV set.
9. **SCART Connector (VCR):** Connection for audio and video signals to a VCR.
10. **LNB Input:** Connects the coaxial cable from the LNB.
11. **LNB Loop-Through Output:** If you have another satellite receiver and you wish to use the same LNB, you can connect it to this “LNB loop-through” output jack.
12. **HDMI**

7. Connection Diagrams

7.1 Connect your STB to various systems

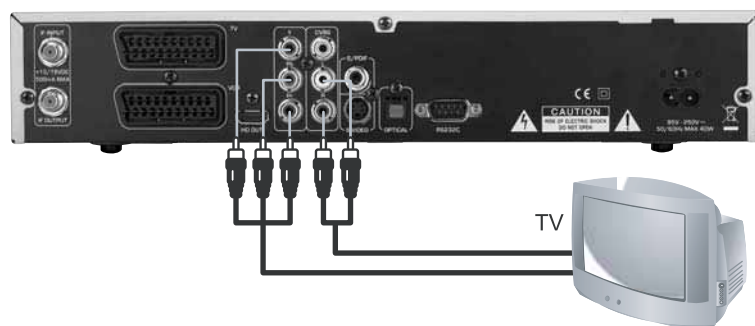
7.1.1 Connect STB to Digital TV Set - HDMI

- Connection to digital TV which can support HD resolution using HDMI port.
- Set STB's video output mode to 1080i or 720p or 576p or 480p from the menu.
- When connecting via HDMI, you do not need to connect audio cables.



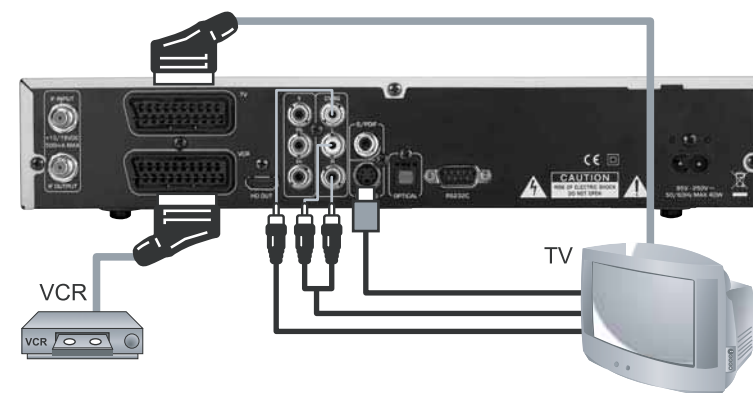
7.1.2 Connect STB to Digital TV set - COMPONENT

- Connection to digital TV which can support HD resolution using YPbPr port.
- Component video separates the video into Y (green), Pb (blue), Pr (red) for enhanced video quality.
- Set STB's video output mode to 1080i or 720p or 576p or 480p from the menu.



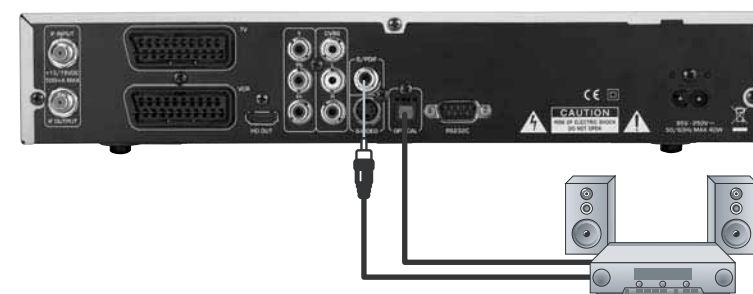
7.1.3 Connect STB to Digital TV and VCR set - SCART or S-VIDEO

- Connect your STB to a TV set with a SCART cable.
- Connect your STB to a VCR set with SCART cable.
- Connect your STB to Digital TV set with an S-Video cable.



7.1.4 Connect STB to an Audio System - Optical

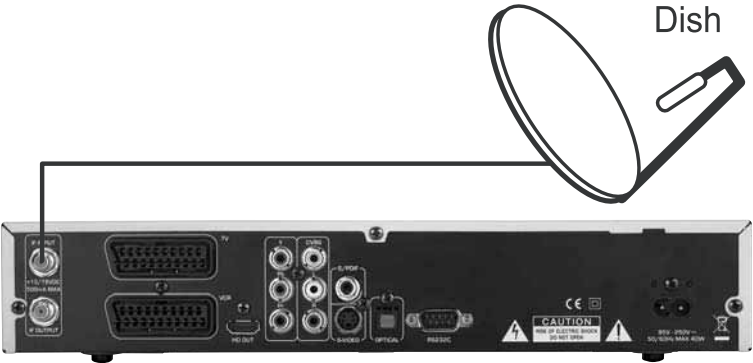
- If you have an AUDIO DAC with S/PDIF Optical or Coaxial cable input, you can connect the STB to it for receiving Digital Audio sound.
- Connect S/PDIF Optical and Coaxial cable to a digital amplifier (Dolby Digital).



7.2 Connect your STB to Dish

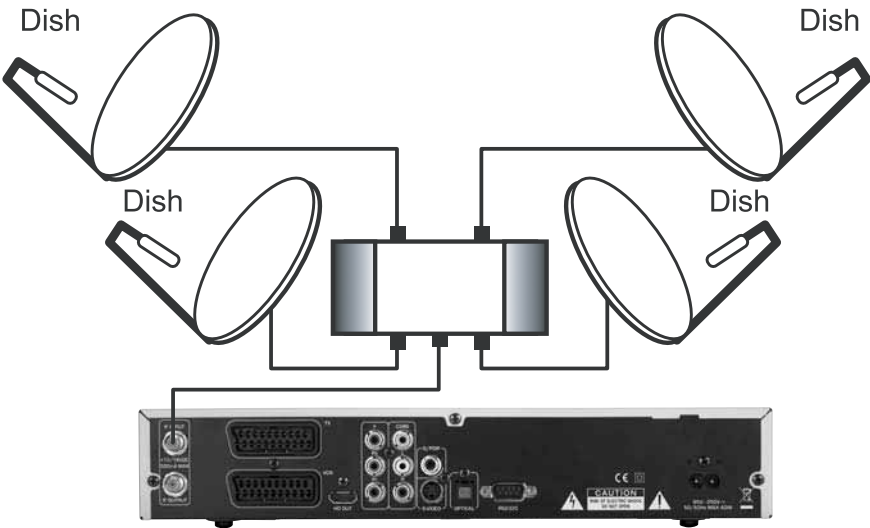
7.2.1 Single Dish

- Connect the satellite antenna cable to IF Input port on your STB.



7.2.2 DiSEqC 1.0 Connection

- If you want to use a DiSEqC switch for more than one satellite, connect the LNB OUT from the satellite dishes to the DiSEqC switch IN connectors, and connect the DiSEqC switch OUT connector to the LNB IN of your receiver.



7.2.3 DiSEqC 1.2 or USLALS (STAB) Connection (motorized dish system)

- Connect the output of DiSEqC 1.2 or STAB motor to IF Input port of your STB.
- For more complete instructions in installing a motor or assembling a dish, you can view instructional videos on Fortec Star's web site (www.fortecstar.com).





8. Menu Structure

8.1 Installation

Antenna Setup
Multisat Scan
Advanced Scan
Sat/TP Edit

8.2 Channel Edit

Channel List
Parental Control
Delete Channels
Factory Setting
S/W Transfer

8.3 System Setting

Language Setting
TV Setting
Time Setting
Other Settings

8.4 Common Interface

Information about Slot 1
Information about Slot 2

8.5 Utility

Calendar
Calculator
Game - Tetris



9. Installation

9.1 Welcome to Fortec Star HD World

- The very first time you turn your receiver on, or after a Factory Reset, the language selection menu appears on your TV screen.
- Use the ◀/▶/▲/▼ buttons to select the language.
- Press OK button to go to next step.



9.2 How to Set Up your Antenna

9.2.1 Antenna Settings

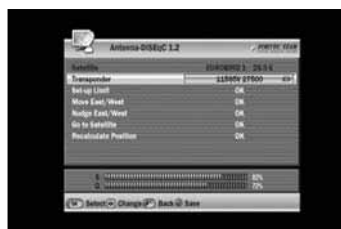
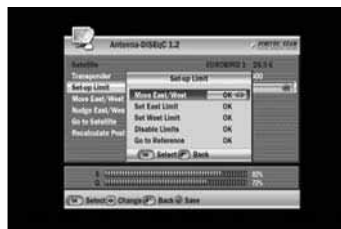
- Select the satellite by pressing ◀/▶ button and choose from the list.
- Select your LNB type using the ◀/▶ button.
- Select the correct DiSEqC setting for your antenna. If you have a single antenna, choose OFF. Otherwise, choose the corresponding DiSEqC output.
- Select DiSEqC 1.1 setting if you are using 4 or more LNB's.
- Choose an active TP for the selected satellite (You will only get a signal from an active TP. If in doubt, please check www.lyngsat.com or www.satcodx.com for a TP that is broadcasting a channel. These Web sites provide a full list of all satellites and the channels available on each satellite.)
- Use Power ON if the receiver is going to feed the LNB. (This is typically the case.)
- Select DiSEqC 1.2 or USALS if you are going to use a motor. If so, after selecting it press OK in order to set up the motor parameters.
- If the setting is completed, your antenna is set up properly and pointed correctly to the selected satellite the two bars will show the level and quality of the signal.
- Save the current setting using the Red button on the remote control.





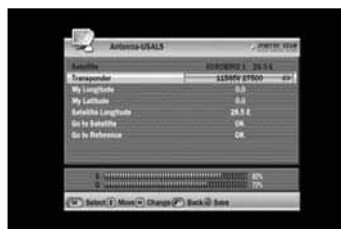
9.2.2 DiSEqC 1.2

- Select Antenna-DiSEqC 1.2 using ◀/▶ button in Positioner Setup mode.
- Press OK to access the DiSEqC 1.2 set up menu.
- To define the Set-up limits, press OK on the corresponding row.
 - Move East/West: Press ◀/▶ button to move the motor.
 - East Limit: Press OK button to fix East Limit.
 - West Limit: Press OK button to fix West limit.
 - Disable Limits: Press OK button to disable East/West Limits.
 - Go to Reference: Press OK button to move the motor to center (0) position.
- Press ▶ button to move west or ◀ button to move east on the corresponding row. Press OK button to stop.
- Nudge East/West: Fine tune the position using ◀/▶ button by adjusting 1 step.
- Go to Satellite: Press OK button to move to the stored satellite position.
- To recalculate the satellite positions, move to the corresponding row and press OK button.
- Press the RED button on the remote control to save the current settings.



9.2.3 USALS

- Select USALS in Positioner Setup and press OK.
- Select an active transponder using ▶ button.
- Set your Longitude using 0~9 buttons and specify East/West using ◀/▶ button.
- Set your Latitude using 0~9 buttons and specify South/North using ◀/▶ button.
- Move to 'Go to Satellite' and press OK button to move the motor to the satellite position.
- To move the motor to the center (0) position, move the cursor to the 'Go to Reference' row and press OK.
- Press the RED button to save the current setting.



9.3 Default Channel loading

The receiver has the most popular channels already downloaded in the memory (this feature will vary for the different regions and may not be available for all regions). To load the pre-stored channels, simply press the GREEN button on the remote control. If your antenna settings don't support the satellites for all channels, you can delete the channels from the satellite you are not using by using the Channel Edit menu (Delete the Channels by Satellite).

9.3.1 Satellite Scan Function

- After completing the Antenna Set up, you can press the yellow button for a quick satellite scan. All channels from the selected satellite will be scanned (FTA + Scrambled).

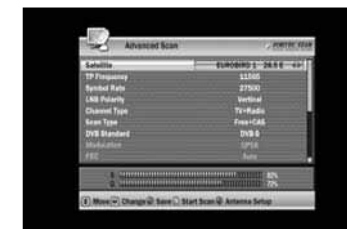
9.3.2 Multi-Satellite Scan Function

- If you would like to scan more than one satellite, after completing the antenna setup menu, press the BLUE button to access the Multi-Satellite Scan menu.
- Select the satellite you want to scan by using ▲/▼ & ▲/▼ buttons and then press OK button.
- Check mark indicates which satellites have been selected for scanning.
- Select the type of channels to search (FTA, scrambled, ALL or Network) by moving to the right with the ▶ button.
- If you need to go back to the satellite list (left column), press the back(◀) button.
- Press the RED button to start the scan.

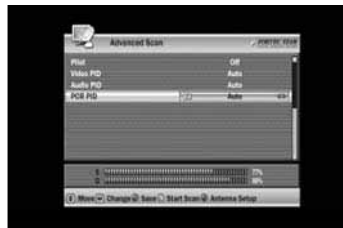


9.3.3 Advanced Scan Function

- To access the Advanced Scan menu from the Antenna Setup, press the WHITE button on the remote control.
- In this menu, you can scan a specific transponder from the list.
- You can scan a new transponder as well by adding its frequency, symbol rate, and polarity.



- Select the satellite by using the ◀/▶ button. Choose from the list and confirm the selection with OK.
- Select the TP by using ◀/▶ button. Choose from the list and confirm the selection with OK.
- If you need to search for a TP which is not in the data, input a proper frequency using Numeric buttons.



- Symbol Rate: Input a proper symbol rate if needed using the Numeric buttons.
- DVB Standard: Select the DVB Standard of the TP (DVB-S or DVB-S2) using ◀/▶ buttons.
- Please refer to following table for selection for Modulation, FEC, Pilot in DVB-S or DVB-S2.

Parameter	DVB-S	DVB-S2	
Modulation	Disabled	QPSK	8PSK
FEC	Auto, 1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 3/5, 4/5, 5/6, 8/9, 9/10	2/3, 3/4, 3/5, 5/6, 8/9, 9/10
Pilot	Disabled	Auto, off, on	Auto, off, on

- If you know the PID channel information you can scan for a specific channel.
- Enter the PID of the channel you want to search.
- Set the channel's Video PID using Numeric buttons.
- Set the channel's Audio PID using Numeric buttons.
- Set the channel's PCR PID using Numeric buttons.
- Press the RED button to save.
- Press the YELLOW button to start the scan.
- Press the MENU button to return to viewing mode or Back(⏮) button to return to previous menu.

9.4 Sat/TP Edit

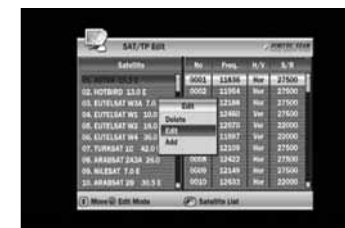
9.4.1 To edit a TP

- Select a satellite from the list.
- Press the ▶ button to move to the TP section.
- Press the RED button to choose delete, edit or add a TP.



9.4.2 Modify TP Information

- To modify the TP information, move to the satellite you want and then press the ▶ button to move to the TP list.
- Select the TP information you want to modify using ▲/▼ buttons and then press the RED button.
- Choose delete to delete the selected TP.
- If you want to edit the selected TP, choose Edit. A pop up menu will appear where you can edit the TP information. To add a new TP choose the Add option and follow the same steps as above.
- Modify the TP information, such as Frequency, Polarization, Symbol Rate, etc. (Use the Numeric buttons to enter Frequency and Symbol Rate information, and use the OK button to enter other information).
- After the changes are made, press the OK button to update the TP information.



9.4.3 Add TP Information

- To add TP information, move to the satellite you want and then press the OK button.
- Press the RED button to be able to add TP information.
- Enter the TP information you want to add, such as Frequency, Polarization, Symbol Rate, etc. (Use the Numeric buttons to enter Frequency and Symbol Rate information, and use the OK button to enter other information).
- Press the OK button to register the TP information.





9.4.4 Delete TP Information

- To delete TP information, move to the satellite you want and then press the OK button.
- Select the TP you want to delete using ▲/▼ buttons.
- If you want to delete, press the OK button. Otherwise, press the BACK(⏮) button.

9.4.5 Edit a Satellite

- Use the ▲/▼ buttons to select the satellite you want to edit.
- Press the RED button.
- Choose Delete if you want to delete the satellite.
- Choose Edit if you want to rename the satellite.
- Type the new name you want, press OK to Save and press Back to return to the previous menu.
- To go back without saving, just press the Back(⏮) button.



9.4.6 Add a Satellite

- Press the RED button in the satellite list of SAT/TP Edit and select Add in other to add the satellite.
- Add the name of satellite when pop up window and press OK to Save.
- Add TP when showing pop up window for additional of TP.
- Satellite could be added up to a total of 100 satellites.

9.4.7 Delete a Satellite

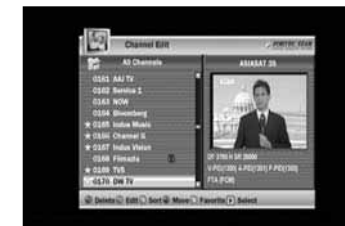
- Use the ▲/▼ buttons to select the satellite you want to delete.
- Press the RED button.
- If you want to delete, press the OK button.
- Otherwise, press the Back(⏮) button.
- Only additional satellite could be deleted but default satellite could not be deleted.



10. Channel Edit

10.1 Channel Lists

The default Channel List is for the channels from all satellites. If you want to list the channels by an individual satellite, press the Sat button and select the satellite.



In this menu you can delete, edit, move or add channels to the favorite lists. To do any of these functions you have to select the channel first with the Mosaic(⊞) button. Multiple channel editing is also possible (except renaming function).

10.1.1 Channel Edit

- Press the RED button to delete the selected channels.
- Press the GREEN button if you want to Lock, Skip or Rename a channel.
- Press the BLUE button to move the marked channel. You can then move the channel to the new location.
- Press the WHITE button if you want to add the selected channel(s) to one or more of the Favorite lists. Please select the Favorite list and press OK to move the channels to the list (except renaming function).



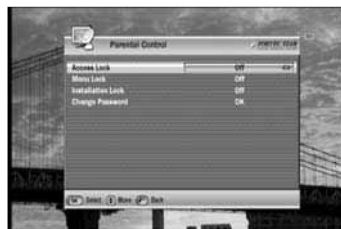
10.1.2 Channel Sorting

- Press the YELLOW button in the Channel Edit menu and display the sub menu for sorting (Rearrange/Alphabet/Scramble/Satellite/Lock/Provider/Theme/HD/SD).
- Select the way you want to sort the channels and confirm the selection by pressing OK.

10.2 Parental Control

10.2.1 Parental Control (Channel Lock)

- Press the Menu button.
- Select “Parental control” from the Channel Edit Menu using the ▲/▼ button and press the OK button.
- When the “Enter Password” message appears, enter the password.
- The factory default user password is ‘0000’.
- This allows you to lock particular channels. For example, you may want to prevent others from accessing adult programs using this function.



10.2.2 Access Lock

- If you want to lock the receiver when it is powered on, select Access Lock “On” using ◀/▶ buttons.
- The password will be required before being able to use the receiver when turning it on.

10.2.3 Menu Lock

- If you want to lock the Main Menu, Select Menu Lock “On” using ◀/▶ buttons.
- The password will be required to enter the Main Menu.

10.2.4 Installation Lock

- If you want to lock the Installation Menu, Select Installation Lock “On” using ◀/▶ buttons.
- The password will be required to enter the Installation Menu.

10.2.5 Change Password

- The factory default user password is ‘0000’.
- To set your new password, select Change Password using ▲/▼ button and press the OK button.
- Input the current password using the Numeric buttons.
- In the highlighted new password field, input a new password.



- To verify the new password, re-enter a new password in the highlighted Confirm Password field.
- If you have lost your individual password you will need a master password which will unlock your system again. Please contact your dealer or your nearest service station for the Master Password.

10.3 Delete Channels

- Go to the Main Menu. Select “Channel Edit”, then select “Delete Channels”.
- Enter password upon request.
- You have the option to delete all channels or to delete the channels from one satellite only.
- Choose the option you need.
- Press “Back” to cancel or OK to confirm and delete.



10.4 Factory Setting

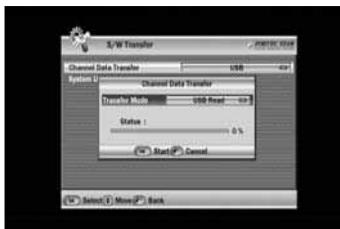
- This function will delete all channel data and all individual settings, restoring the default values.
- Go to the Main Menu, select “Channel Edit”, and then select “Factory Setting”.
- Enter password upon request.
- To go back to the default factory settings, choose Factory Reset. This will delete all channels.
- If you want to save your channel list first, press Channel Backup.
- After doing a Factory Reset, if your channel list is saved with Channel Backup, you can restore it by choosing Channel Recovery.
- Press “Back” to cancel or OK to confirm.



10.5 S/W Transfer

10.5.1 Channel Data Transfer

- Select the connection for channel data transfer - USB or RS232C, using ◀/▶ buttons and confirm with OK.
- If you are using a USB memory stick:
- Select USB memory stick and show USB menu.
- Insert the USB memory stick in the USB connection in the front panel.
- Select Write or Read using ◀/▶ buttons.
- Select "USB Write" and press OK button to transfer the channel data from the receiver(STB) to the USB memory stick.
- Select "USB Read" and press OK button to transfer channel data from the USB memory stick to the receiver (STB).



10.5.2 System Update

Never transfer software or data from a different model receiver or from a source other than the official Fortecstar websites. If transferring software to the receiver using your PC, be sure to use the correct file. Software for most Fortec Star receivers can be found on Fortec's Web site at www.fortecstar.com.

If required, the receiver can be upgraded with the latest version of software in three different ways: from USB memory stick, PC, or other Fortec Star Passion receiver.

- Press OK button to enter the S/W Transfer sub menu.
- To select USB, PC to STB, or STB in transfer mode using ◀/▶ buttons.
- When using a USB memory stick:
- Insert the USB memory stick into the USB connection on the front panel.

- Press OK and select the file you want to use for upgrading with ◀/▶ buttons.
- Note: The file has to be out of any folders in the main directory of the USB stick.
- Press OK button to start the upgrade.
- Remember to disconnect the USB stick after the process is finished.



11. System setting

11.1 Language Setting

11.1.1 Menu Language

- Press the ◀/▶ buttons to see a list with the available languages.
- Select your language and confirm it with OK.
- The selected menu language will be applied to the entire menu.



11.1.2 Audio Language

- Press the ◀/▶ buttons to see a list with the available languages.
- Select your language and confirm it with OK.

11.1.3 Subtitle Language

- Press the ◀/▶ buttons to see a list with the available languages.
- Select your language and confirm it with OK.

11.2 TV Setting

11.2.1 Video Output

- Select the TV output options for TV SCART using ◀/▶ buttons (CVBS, S-Video, RGB).

11.2.2 TV Aspect Ratio

- In accordance to the type of your TV, you can adjust the screen aspect ratio.
- Select your TV screen type using ◀/▶ buttons (4:3 or 16:9).



11.2.3 TV Display Format

- Select the TV Display Format using ◀/▶ buttons.
- In case of 4:3 format: Select your TV Display format (Letterbox, Center mode, Auto).
- In case of 16:9 format: Select your TV Display format (Pillar Box, Full Mode, Auto).

11.2.4 Digital Audio

- Turn the Digital Audio output through the optical and coaxial jack ON or OFF using ◀/▶ buttons.

11.2.5 Resolution

- Select the correct resolution for your TV set.

11.3 Time Setting

11.3.1 Time Zone

- Press the ◀/▶ buttons to see a list with different time zones.
- Select your Time Zone and confirm with OK.
- Current time and data are automatically set by the broadcasting signal from the satellite.



11.3.2 Summer time

- Select "On" if your country is using Daylight Saving Time.
- Select "Off" if your country doesn't use Daylight Saving Time at the moment.

11.3.3 User Time Setting

- If you prefer, you can set the time manually. This may be necessary if the satellite you are watching does not transmit the correct time, which is common for FTA broadcasts.
- Change the setting to ON using the ◀/▶ buttons.
- Press OK to open the time setting Popup Menu.
- Use the Numeric or ◀/▶ buttons to enter the data.
- When finished, press OK button to save.
- You may need to adjust the manually entered setting over time.



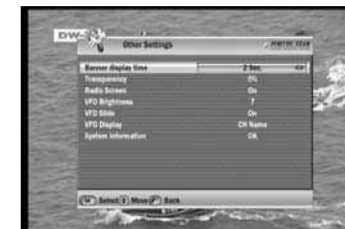
11.4 Other Settings

11.4.1 Banner Time

- Set the time duration for banner display (2, 4, 6, 8sec) using the ◀/▶ buttons.

11.4.2 Transparency

- Set the OSD transparency level (0%~50%) using the ◀/▶ buttons.



11.4.3 Radio Screen

- You can set "On" or "Off" using the ◀/▶ buttons.

11.4.4 VFD Brightness

- Set the VFD Brightness level (0~7) using ◀/▶ buttons.

11.4.5 VFD Slide

- Set to "On" or "Off" using the ◀/▶ buttons. If you select ON the long channel names will scroll on the display.

11.4.6 VFD Display

- Select the display option using the ◀/▶ buttons. Choose from displaying the channel name only, the channel name and the channel number, or the time.

11.4.7 System Information

- This shows the information for the current software status.
- Use this to check the software version or release date of the current software before upgrading.
- Display the system information: Model name, Loader Version, Software Version, and Software date.





12. Common Interface

12.1 CI Slot

This HD receiver has 2 CI (Common Interface) slots for using CA modules.

- To read the information about the installed CA module and Smart Card, select the CI slot you are using and press OK.



13. Utility

13.1 Calendar

- Press ◀/▶ buttons to change the month.
- Press ▲/▼ buttons to change the year.

13.2 Calculator

- Press ◀/▶ or ▲/▼ buttons to select numbers. Confirm the numbers by pressing OK.
- You can type the numbers from the remote control as well using the numeric buttons.



13.3 Game Tetris

- Play: Start game by pressing the RED button on the RCU.
- Stop: Use the BLUE button.
- Pause: Use the GREEN button.
- To change the positions of the figure, use the ▲ button.
- To move it to the left or to the right use the ◀/▶ buttons.
- To drop it quickly, press ▼.



14. Basic Function

14.1 General Information

14.1.1 Info Bar

The info bar is displayed with the following information when pressing the Info (i) button.

- Channel number and name.
- Indicates TV or Radio channel.
- EPG for current and next program.
- Satellite name for current channel.
- CAS.
- Signal level.
- Signal quality.
- Current time.
- Frequency and symbol rate for current channel.
- Icons: Subtitle, Teletext, Density, Scramble, Channel Lock, Dolby, Stream Resolution.



14.1.2 Detailed Program Information

- You can see detailed information about the current program by pressing the Info (i) button a second time.



14.2 EPG Information

- Press the EPG button while watching a TV channel or listening to a Radio channel.
- Select a program which you want to see more information on.
 - ▲/▼: Select an event by channel. If there are multiple channels, use the/ button to move the channel list by page.
 - After selecting a channel you can select an event using the ◀/▶ buttons.
 - Press OK to tune to the channel.





- Press the RED button to see the EPG information for the next 7 days.
- Press the BLUE button to scroll to the next page of the extended information.
- You can access the reservation menu with using the GREEN button.
- To exit from the EPG mode, press the back() or EPG button.



14.3 Teletext

- Press TTX button to enter "OSD Text" display.
- If the channel broadcasts teletext, the teletext icon on the info bar will be highlighted.
- The "OSD Text" is utilizing the built-in teletext decoder of this receiver. It can be used also with TV monitors or projectors that don't have an integrated teletext decoder.
- The other option is called "VBI Text" that leaves decoding up to a teletext decoder that is included into the TV set. In this case, an entire teletext function is to be operated through the remote control unit of the TV set.
- Press [0~9] buttons: Change Page number.
- Press [▲/▼] buttons: Change Page up and down.
- To exit from the Teletext, press the back () or TTX button.



14.4 Subtitle

- Press the Subt. (GREEN) Button to display the subtitle menu.
- Set the subtitle function to ON or OFF using the ◀/▶ buttons.
- Select the subtitle language using ▲/▼ buttons.
- To exit from the Subtitle menu, press the back () or Subt. (GREEN) button.



14.5 Timer Menu

- Press the Timer button to display the Event List.
- Press OK to display the Event Setting menu.
- Press the ◀/▶ buttons to show the channel list, chose the channel and confirm with OK.
- To set the date use the numeric (0~9) buttons.
- To set the start time use the numeric (0~9) buttons.
- To set the finish time use the numeric (0~9) buttons.
- To set the period of recording use ◀/▶ buttons.
- To set the mode, use the ◀/▶ buttons.
- Press OK to save.



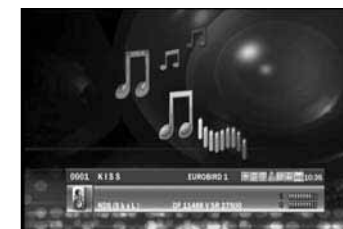
14.6 Audio Mode

- Press the Audio (RED) button to display the menu.
- Change the audio language by using ▲/▼ buttons to select one of the languages provided by the broadcaster.
- Use the ◀/▶ buttons to select the audio mode.



14.7 Listening to the Radio

- To listen to the radio, press TV/Radio button on the Remote Control.
- To return to TV viewing, press TV/Radio button again.





14.8 Last Channel

- Press the Last (YELLOW) button to display the Last Channel List menu.
- It displays the last 5 channels viewed.
- If you want to go back to one of the last five channels, select it using the ▲/▼ buttons and press the OK button.



14.9 Find Function

- Press the Find button to view the Quick-find Menu.
- Search channels by full name or simply by initial letter, type the name by using the ▲/▼ or ◀/▶ buttons to select the letter and press OK to confirm it.
- When you see the channel you are looking for in the list, you can move to the channel list by pressing the Back(⏮) button.
- You can scroll to the channel and press OK to start watching it.



14.10 Satellite Function

- You can access the channel list by satellite after pressing the Sat button on the remote.
- Press the Sat. button to display the satellite list menu.
- Select the satellite using the ▲/▼ button and press the OK button.



14.11 Favorite Function

- If you are looking for a channel which is already in one of your Favorite lists, you can find it easily by pressing the FAV.(WHITE) button on the remote control.
- Press the Fav.(WHITE) button to display the favorite lists.



- By repeatedly pressing the Fav.(WHITE) button, the list will change to the next Favorite list.
- To start watching the channel you are looking for, you have to select it from the list and press OK
- To rename a favorite list press the Fav.(WHITE) button on the remote control and then press the Option button. You will now be able to use the keyboard menu to rename.

14.12 Sleep Timer

- Press the Sleep button to display the menu for the Sleep Timer.
- Select the Sleep time using the ◀/▶ buttons and press the OK button.
- Selection time : Off, 5, 10, 20, 30, 40, 50, 60, 120min.



14.13 USB Function

A USB memory stick can be connected to the USB connection port next to the CI slots. It can be used for playing MP3 music or watching pictures from your digital camera on the TV screen.

- Connect USB memory stick to the USB connection port.
- Press the USB button to display the USB menu.
- Select the file using the ▲/▼ button and press OK button.
- To exit from the USB menu, press the back (⏮) button.



14.14 Zoom Function

- Press the Zoom(🔍) button on the remote control.
- Select the position using ▲/▼ and ◀/▶ buttons.
- Press BLUE or Zoom(🔍) button to change Zoom x2, x4, x8, x16 and press OK button to confirm.
- To exit from Zoom, press the back(⏮) button.



14.15 Mosaic Function

- Press Mosaic() button to display the Mosaic menu.
- Select the mosaic channel number you want (4 or 9 or 16 channel) using ▲/▼ and press OK button.
- Select the channel to be live using ▲/▼/◀/▶ buttons.
- Change the Live channel using the PIP CH (+/-) button.
- Re-tune the mosaic function to the next group of channels using the Info () button.
- To exit from Mosaic, press the back () or the Mosaic() button again.
- Please note that if you are using SCART or RCA connection to your TV, you have to select Mosaic Display: Aux Video. If you are using other video outputs, you have to select Mosaic Display: Main Video.



14.16 Power Search

- Enables the receiver while in 'STANDBY MODE' to rescan satellite details in order to add or adjust Transponder Frequency data and individual channel data. This is extremely useful if the various satellites make regular changes to data. I.e ASTRA 28.2; ASTRA 19.2; HOTBIRD 13.
- In the 'SYSTEM SETTINGS' Menu
- Go to 'OTHER SETTINGS' press OK
- Go to 'POWER SEARCH MODE' press right arrow button (Vol +) to switch on
- Select the satellite(s) to be reviewed by pressing OK (GOLD STAR means selected)
- Next while on the particular satellite press the right arrow button (Vol +).
- You now have the option to adjust the type of scan to complete.
- After you have selected the type of scan press the Red button to 'SAVE' the settings.
- Now use the Back Key to go out of the menu and back to 'OTHER SETTINGS'
- Now you have the option to set how often the Receiver should check the data.
- Select using the 'POWER SEARCH TIME' setting, press the right or left arrows to bring up the pop up window.
- NOTE: POWER SEARCH starts 1 minute after going into standby and there is a slight delay in turning on (2 seconds) if receiver is in the middle of scanning satellites. Additionally if you have a motorized system the receiver will move the motor when in 'STANDBY' with the POWERSEARCH setting ON.

15. Troubleshooting

There may be various reasons for the abnormal behavior of the receiver. Check based on the procedure shown in the table below.

Problem	Solution
No display VFD on the front panel.	Connect power cord properly into the power outlet and turn on the front panel AC power switch.
No picture	Ensure that the STB is switched on. Check connections to the receiver.
No sound	Check the volume level of the TV and STB. Check the mute status of the TV and STB. Check the connection for audio cable.
Poor picture quality	Check the signal level, if this is considered as too low then try adjusting the alignment of your dish.
Remote Control does not operate	Aim the remote control at the receiver. Check and replace batteries. Press the STB button
Service is not running or scrambled	Check whether the common interface module and smart card is correctly inserted. Check that the smart card is an appropriate card for the selected service.
Poor HD picture quality connected by YpbPr or HDMI	Change the HD output resolution in the TV Setting Menu.
Not working	Remove the power cord or AC switch OFF/ON in front panel.

16. Technical Specifications

Tuner & Demodulator

Input Connector	F-Type, Female, IEC 169-24
Input Frequency Range	950MHz ~ 2150 MHz
RF Input Signal Level	-65dbm ~ -25dbm
LNB Power & Polarization	Vertical : +12V ~ +14V Horizontal : +17V ~ +19V Current : Max.500mA with overload protection
22KHz Tone	Frequency : 22KHz, +/-4KHz Amplitude : 0.6V, +/-0.2V
DiSEqC Control	DiSEqC 1.0, 1.2, 1.3 compatible
Demodulation	QPSK & 8PSK
Input Symbol Rate	DVB S : 1~45Ms/s DVB S2 : 20~30Ms/s(QPSK), 10~30Ms/s(8PSK)
FEC Code Rate	DVB S : 1/2, 2/3, 3/4, 5/6, 7/8 DVB S2(QPSK) : 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 DVB S2(8PSK) : 3/5, 2/3, 3/4, 5/6, 8/9, 9/10

MPEG Transport Stream A/V Decoding

Transport Stream	According to ISO/IEC 13818-1
Video Resolution	1920x1080i, 1280x720p, 720x576p, 720x576i
Input Rate	Max. 15MB/s
Video	MPEG2 MP@HL, MPEG AVC/H.264 HP@L4
Audio	ISO/IEC 13818-3 Layer I & II
Audio Mode	Single/Dual Channel
Audio Sampling Frequency	32/44.1/48KHz

Main System

Main Processor	Sti7100
Graphic(MPEG) & System Memory	64Mbytes + 64Mbytes
Flash Memory	8Mbytes
EEPROM	8Kbytes

A/V & Data Input/Output

Video	TV-Scart(CVBS out, S-Video out) VCR-Scart(CVBS in/out, RGB in) RCA Jack(CVBS out), Component Jack(YpbPr out) Din Jack(S-Video out)
Audio	TV-Scart(L/R out) VCR-Scart(L/R in/out) RCA Jack(L/R out, Digital audio out) Optical Jack(Digital audio out)
Digital A/V Output	HDMI Digital A/V Output
Serial Port	Transfer rate 115200bps
USB A type	USB Host

Front Panel

KEYS (8 Button)	AC Power, Ch Up/Down, Volume Up/Down, Menu, OK, Back
VFD(10Digit Alpha Numeric)	Channel Numbers, Name and Time
PCMCIA	2Slot Common Interface
USB Host	USB A type connector

Power Supply

Input Voltage	AC 95 ~ 250V, 50/60Hz
Type	SMPS
Power Consumption	Running Max 40 watts

Physical Specification

Dimension (W x D x H)	340 x 230 x 65 mm
Weight	2.7 kg
Operating Temperature	0 ~ 40 degree
Storage Temperature	-20 ~ 60 degree

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
ACCENT	049 063	A.R.SYSTEM	049 063
ACEC	112	ARTHUR MARTIN	075 107 127 133 136 139 148
ACURA	195		153 307 425
ADMIRAL	065 076 163 171 190 307 324	ASA	003 020 065 078 080 091 117
	369		146 171 197 235 307 319 324
ADYSON	379		341 375 406 408
AGASHI	076 379	ASBERG	049 063 407
AGEF	324	ASORA	195
AIKO	049 063 076 102 141 172 195	ASTRA	195
	225 379	ASUKA	006 050 076 123 379
AIM	049 063	ATLANTIC	049 050 063 113 236 242 379
AIWA	376 377	ATORI	195
AKAI	019 049 050 055 063 076 102	AUCHAN	107 425
	107 123 133 139 141 150 172	AUDIOSONIC	031 049 063 074 076 195 213
	174 182 195 209 225 326 333		379 392 421
	379 428 432 433 437	AUDIOTON	050 076 379 392 421
AKIBA	006 049 063 123 380	AUSIND	075 090 407
AKITO	049 063 106	AUTOVOX	050 071 078 079 080 083 090
AKURA	006 049 076 096 123 195 419		147 156 236 254 305 319 323
	426		324 379 407 413 416
ALARON	042 334	AWA	018 049 063 131 195 206 320
ALBA	018 044 049 050 107 123 134		379 426 433
	163 179 184 195 225 228 232	AYOMI	411
	239 379 413 421 431	BAIRD	074 102 182 209 321 329 379
ALBIRAL	121 326 372		409
ALCYON	407	BANG & OLUFSEN	324
ALLORGAN	050 094 236 334	BARCO	107 355 371 372 422
ALLSTAR	049 063	BASIC LINE	006 031 049 107 123 159 195
AMPLIVISION	113 379 421 425		207 226
AMSTRAD	004 011 049 063 076 123 131	BASTIDE 379	
	172 195 225 426	BAUR	012 049 053 063 107 150 172
ANAM	049 063 195		244 245 246 247 301 357 414
ANGLO	076 195		416
ANITECH	049 063 076 195 407	BAZIN	379
ANSONIC	045 049 063 107 112 195 210	BEKO	063 184 240 241 392 421 433
	242 391 413 421	BEON	049 063 163
APOLLO	165	BEST	213 421
ARC EN CIEL	029 034 074 182 186 415 424	BESTAR	049 063 421
ARCAM	029 379 424	BINATONE	379
ARDEM	392	BLACK STAR	413
ARISTONA	049 050 063 065 079 112 158	BLACKTRON	006
	160 188	BLACKWAY	006

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
BLAUPUNKT	019 053 057 060 113 118 244	CLATRONIC	031 045 049 063 076 113 123
	245 246 247 248 249 308		195 225 379 407 413 421 431
BLUE SKY	006 049 063 123 195 232	CMS HIGHTEC	379
BLUE STAR	006	COMTEL	111 125
BONDSTEC	413	CONCORDE	195
BOOTS	050 106 379	CONDOR	006 045 049 050 063 113 163
BPL	006 049 063		195 210 379 413 421
BRANDT	074 182 218 415 424 436	CONTEC	018 131 195 206 302 320 379
BRANDT ELECTRONIQUE	029 034 074 182 186	CONTINENTAL EDISON	029 034 074 182 186 232 415
BRINKMANN	049 063 163		424
BRION VEGA	049 063 065 083 167 172 173	COSMEL	195 213
	181 196 324 356	CROSELY	044
BRITANNIA	379	CROSLEY	054 065 090 093 094 104 107
BROTHER	076		139 324 407 413
BRUNS	056 065 324	CROWN	049 063 154 163 170 195 209
BSR	094 107 110 139 168 314		232 372 407 419 421 431
BTC	123	CS ELECTRONICS	031 123 379 413
BUSH	006 018 049 076 094 106 107	CTC	413
	123 134 139 142 143 172 179	CTC CLATRONIC	045
	195 209 223 225 226 232 239	CURTIS MATHES	126 190 212
	307 379 416	CYBERTRON	123
BUSH(UK)	107 147 168	DAENYK	042
CAPSONIC	076	DAEWOO	063 123 140 145 161 193 195
CARAD	049 063		379
CARENA	049 063 380	DAINICHI	123 379
CARREFOUR	018 406	DANSAI	063 076 141 195 379
CARVER	177	DANSETTE	426
CASCADE	049 063 064 195	DANTAX	392 421
CASIO	049 063	DATSURA	209
CATHAY	049 063	DAWA	049 063
CCE	049 063 379	DAYTRON	049 063 195 226
CENTURION	049 063	DE GRAAF	023 107 122 139 209 307
CENTURY	044 054 065 163 189 324 411	DECCA	049 063 102 106 111 120 200
	413		331 379
CGE	002 044 054 090 093 094 096	DECCA(UK)	046 050 102 106 131
	107 139 142 163 168 189 369	DEITRON	049 063
	407 413 421	DENKO	076
CIHAN	111	DENON	126 212
CIMLINE	031 123 134 195	DER	321
CITY	195	DERWENT	105
CLARIVOX	056 121 125 163 406	DESMET	049 063 113
CLATONIC	076 123	DIAMANT	049 063

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
DIGILINE	049 063	EUROPHON	044 045 046 049 050 063 068 107 120 168 318 336 379 413
DIGITAL-DEVICE	025	EXPERT	107 236 242 425
DIXI	063 195 379 413	EXQUISIT	049 063 413
DOMLAND	423	FAMILY LIFE	049 063
DORIC	104 105	FENNER	063 195
DREAN	049 063	FERGUSON	001 032 050 073 074 076 080 082 102 103 121 158 182 204 218 244 245 246 251 306 319 321 322 328 329 344 409 411 436
DTS	195	FIDELITY	049 050 063 076 107 158 225 307 364 379
DUAL	049 050 063 095 107 139 156 168 182 242 243 379 414 416 423 424	FIDELITY(UK)	133
DUAL-TEC	195 168 050 040	FILSAI	050 379
DUMONT	045 065 080 102 139 146 319 324 339 341 375 379 406 408	FINHER	359
DUMONT-FINLUX	020 045 061 075 078 091 104 117 147	FINLANDIA	033 122 139 172 197 209 223 307 375 419
DUX	049 063 112	FINLUX	003 020 042 045 049 061 063 075 078 080 090 091 102 104 107 117 139 146 147 163 197 210 235 319 324 339 341 375 379 406 407 408 428 429 437
DYNATRON	049 063	FIRST LINE	045 049 063 094 102 107 134 139 191 195 209 210 379 411 413 416
ELBE	049 063 107 121 123 172 194 210 242 337 368 369 391 411 421 435	FISHER	018 041 050 056 065 069 102 104 107 117 139 143 156 172 189 206 209 320 324 379 408 414 416 421
ELBIT	111	FLINT	031 049 063 102 123 379 380
ELCIT	045 046 047 062 065 104 107 150 168 324 413	FNR	045
ELECTA	006 076	FORGESTONE	158
ELECTRO TECH	195	FORMENTI	090 107 113 139 307 324 379 407
ELEKTA	006 076	FORMENTI-PHOENIX	050 075 104 113 148 307
ELEKTRONSKA	318	FORTRESS	190 324
ELG	049 063	FRABA	049 063 421
ELIN	003 020 049 063 107 139 172 195 379 408 416	FRIAC	045 049 063 195
ELITE	031 049 063 123	FRONTECH	076 139 195 307 379 413 416
ELMAN	045 168	FUJITSU	042 045 102 107 195 236 327 379
ELTA	076 195 379		
EMERSON	004 006 042 044 049 063 065 113 225 324 327 406 413		
EMPEROR	006		
ERRES	063 112		
ESC	049 063		
ETRON	049 063 107 139 195		
EURO-FEEL	076		
EUROMANN	049 063 076 379 421		
EUROPA	049 063		

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
FUJITSU GENERAL	195 379	HANSEATIC	107 113 143 172 195 324 379 391 416 421 423
FUNAI	042 076 094 314 327	HANTAREX	045 046 049 063 195
GALAXI	045 049 063	HANTOR	049 063
GALAXIS	045 049 063 163 421	HARLEY DAVIDSON	042
GBC	031 104 107 139 143 168 195	HARWOOD	049 063 195 426
GE	006 074 182 218	HAUPPAUGE	049 063
GEANT CASINO	107 425	HCM	006 031 049 063 076 123 163 195 379 426
GEC	049 063 102 104 107 120 171 172 192 307 379 416	HEMA	195 379
GEC(UK)	046 050 102 107 150 162 192	HEMMERMANN	150 416
GELOSO	031 047 062 104 107 139 168 171 195 307 413	HIFIVOX	029 034 074 182 186 304 424
GENERAL	064 074 182	HIGASHI	050
GENERAL TECHNIC	195	HIGHLINE	049 063 076
GENEXXA	049 063 123 307 426	HIKONA	123
GOLDHAND	379	HINARI	004 018 042 049 066 094 107 119 123 133 134 139 143 179 195 209 232 307 327
GOLDLINE	213	HISAWA	006 031 123 380 425
GOODMANS	018 042 063 076 102 134 139 141 143 155 182 195 218 225 232 379 428	HIT	342
GORENJE	124 189 421	HITACHI	007 009 018 020 023 033 049 050 063 074 086 102 104 107 110 126 127 139 143 150 162 168 171 176 182 185 186 192 212 218 231 304 307 309 315 333 334 344 361 379 416 418
GPM	123	HITASHI FUJIAN	013 164 252
GRADIENTE	049 063 170 177	HITSU	123 195 379
GRAETZ	049 063 090 104 136 139 153 159 162 171 172 198 225 307	HORNYPHON	049 063 112
GRANADA	013 018 033 041 063 102 104 105 112 120 148 164 165 171 209 218 237 238 240 241 252 307 325 363 379 407 418 419	HOSHAI	123 379
GRANADA(UK)	046 050 090 107 139 143 162 307	HUANYU	379
GRANDIN	006 031 049 063 107 113 123 195 379 380 425 431 435	HYGASHI	379
GRONIC	045	HYPER	050 168 195 254 361 379 413
GRUNDIG	005 019 049 053 063 080 090 101 115 118 166 232 244 245 246 247 248 249 308 340 341 406 407	HYPERSOINIC	172
HALIFAX	076 379	HYPSON	006 049 063 076 379 380 411 425
HAMPTON	379	IBERRIA	049 063
HANIMEX	094	ICE	049 063 076 123 195 225 379
HANSEATIC	006 018 049 050 063 094 104	ICES	123 379
		IMPERIAL	002 044 049 054 063 090 093 094 107 142 163 168 189 301 307 369 407 413 416 421

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
INDIANA	049 063	KARCHER	003 006 020 031 045 049 050 063 068 076 107 195 207 217 421 435
INGELEN	090 104 136 139 153 159 162 171 198 232 435	KATHREIN	124
INGERSOL	195	KAWASHO	379
INNO HIT	044 046 049 050 063 066 102 123 155 195 217 379 407 413	KB ARISTOCRAT	107
INNOVATION	049 063	KENDO	044 045 049 055 063 134 172 210 413 421 435
INTERACTIVE	210	KENNEDY	071 079 104 107 139 236 305 323 369
INTERBUY	076 195 413	KINGSLEY	379
INTERFUNK	049 063 065 067 074 090 104 107 112 139 150 153 159 172 182 301 302 324 363 421	KLARMAX	371 372
INTERVISION	006 045 049 055 063 076 107 123 225 232 378 379 380 381 382 384 385 386 387 388 389 413 421 423	KNEISSEL	049 063 210 242 369 391 411 421 435
IRRADIO	031 049 063 066 075 090 123 155 195 254 407 413	KOLSTER	045 049 063 416
ISUKAI	006 049 063 123	KONKA	031 049 063 123 225 232
ITC	379	KORPEL	049 063
ITS	006 031 049 063 076 123 225 379	KORTING	027 065 094 113 324 421
ITT	042 090 107 117 134 139 150 157 159 162 165 171 172 193 197 198 209 301 307 343 350 375 416 428	KOSMOS	049 063
ITT-NOKIA	042 090 097 104 107 117 134 136 139 150 153 159 162 165 171 172 185 193 197 198 209 301 307 343 350 375 416 428 433 435 437	KOTRON	076 426
ITV	049 063 076 413	KRAKING	411
JEAN	018	KRIESLER	050 063 065 079 112 158 160 188
JEC	141	KTV	050 379
JET POINT	365	KYOSHU	076 163
JVC	018 103 123 129 143 158 170 174 182 225 364 409 433	KYOTO	107
KAISUI	006 031 049 050 063 123 195 207 379 380	KYUSHU	426
KAMOSONIC	050	LECSON	049 063
KAMP	379	LEMAIR	210
KAPSCH	107 172 236 242 408	LENCO	049 063 107 195 408
		LENOIR	050 195
		LESA	413
		LEYCO	049 063 076 094 102 431
		LEYEO	076
		LG(GOLDSTAR)	023 049 050 055 063 107 139 152 155 168 172 195 202 203 219 254 379 413 421
		LIESENKOTTER	049 063 112
		LIFETEC	049 063 076 123 195
		LLOYD'S	195
		LOEWE	049 063 089 324 391 421
		LOEWE OPTA	035 046 049 052 063 065 120

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
LOEWE OPTA	144 213 324	MELECTRONIC	003 049 063 074 182 195 210 375 379 408 413 416 428 429
LOGIC	331	MELVOX	425
LOGIK	032 131 158 225 364	MEMOREX	099 195
LOGIX	195	MEMPHIS	102 195 213
LUMA	063 107 110 133 171 172 195 210 236 242 307	MERCURY	049 063 195
LUMATRON	049 063 076 107 172 236 242 329 379	METZ	019 049 051 053 065 067 070 092 118 244 245 246 247 324 412
LUX MAY	049 063 195	MICROMAXX	049 063 195
LUXOR	042 050 090 107 122 127 133 139 150 155 159 165 172 185 197 209 307 312 330 416 418 428 429	MINERVA	019 053 080 090 118 232 244 245 246 247 248 249 340 341 406 407
LYCO	076	MINOKA	049 063 419 426
M ELECTRONIC	003 235 375	MISTRAL	158
MAAZ	371 372	MITSUBISHI	013 018 019 021 049 063 065 105 124 131 132 143 157 164 183 190 244 245 246 252 326 330 331
MADISON	049 063	MIVAR	043 046 050 058 072 081 090 120 155 318 337 379 391 407 421 434
MAGNADYNE	045 046 047 062 065 104 107 120 139 150 168 318 324 413	MONACO	195
MAGNAFON	045 046 050 068 075 090 120 235 336 379 407	MORGAN'S	049 063
MAGNAVOX	018 042 049 063	MOTION	407
MANDOR	076	MOTOROLA	190
MANESTH	063 076 094 113 134 141 379	MTC	049 063 379 416 421
MANHATTAN	049 063 195	MTEC	106
MARANTZ	063	MULTISTANDARD	045
MARELLI	324	MULTITEC	049 063 195
MARK	063 195 379	MULTITECH	031 045 046 049 050 063 120 189 195 379 392 413 416 421
MASUDA	123 195 225	MURPHY	102 104 105 107 117 171 254 307 379 408
MATSUI	001 004 018 041 049 050 063 094 100 102 106 107 131 134 141 143 150 171 179 180 195 209 218 225 229 232 244 245 246 307 314 331 379 380 416 431	MURPHY(UK)	162
MAXIMAL	119 139	MUSIKLAND	123
MAXWELL	371 372	NAD	172 209
McMICHAEL	192	NAIKO	049 063
MEDIATOR	049 063 112	NAKIMURA	049 063
MEDION	049 063 195	NAONIS	036 040 071 079 110 171
MEGAS	435	NAT	085 149 151
MEGATRON	126 212	NATIONAL	033 085 104

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST		
NEC	018 049 063 113 131 143 177 195 379 380		
NECKERMANN	002 012 049 050 063 065 107 133 139 163 180 189 210 247 250 307 312 324 357 379 413 416 421		
NEDIATOR	063		
NEI	063 125 225		
NESCO	042 413		
NETSAT	049 063		
NETWORK	213		
NEUFUNK	049 063 195 435		
NEW WORLD	123		
NEWTECH	049 050 063 182 195 379		
NICAMAGIC	379		
NIKKAI	018 049 063 076 102 123 139 141 195 213 379		
NIKKIA	066		
NOBLEX	049 063 076 359 360		
NOBLIKO	044 045 050 075 080 090 235 379 406 407		
NOGAMATIC	029 034 074 182 186 424		
NOKIA	090 104 107 117 134 136 139 150 153 157 159 162 165 171 172 193 197 198 209 301 307 330 343 350 416 419 428 429 433 437		
NORDMENDE	017 029 034 038 049 063 074 083 130 150 165 174 182 186 218 244 245 246 304 307 333 334 424		
NOVATRONIC	003 020 049 063		
OCEANIC	086 094 104 107 108 109 116 139 159 172 209 425		
OCEANIC(F)	150		
ODEON	076		
OKANO	049 063 076 102 421		
OMEGA	076		
ONCEAS	050		
ONWA	031 123 225 432		
OPERA	049 063		
OPTIMUS	099 315		
BRAND NAME	CODE LIST		
OPTONICA	190		
ORBIT	049 063		
ORION	004 042 045 049 051 063 076 094 113 131 134 139 150 179 191 195 199 216 314 331 366 367 426		
ORLINE	049 063 123		
ORMENTI-PHOENIX	104		
ORMOND	195		
OSAKA	066		
OSAKI	049 063 066 076 102 106 123 379 426		
OSIO	049 063 155		
OSO	123		
OSUME	018 102 123 302		
OTTO VERSAND	012 018 049 050 053 063 074 094 104 107 113 134 139 143 172 190 244 245 246 247 250 312 357 362 379 413 414 416		
P.T ACTRON	111		
PAEL	050 075 379		
PALLADIUM	012 049 063 107 163 210 247 324 357 379 413 416 421		
PALSONIC	049 055 063 076 379 426		
PANAMA	049 063 076 195 379 413		
PANASONIC	049 063 099 104 107 137 139 149 151 172 397 398 400 401 405		
PANAVISION	049 063 210		
PATHE CINEMA	107 113 121 379 391 411 416 425		
PATHE CINEMA(F)	050 168		
PATHE MARCONI	029 034 074 182 186 415 424		
PAUSA	195		
PAUZA	195		
PERDIO	049 063 102 107 113		
PERFEKT	049 063		
PERSHIN	425		
PHILCO	002 016 044 049 054 063 065 090 093 094 104 107 126 142 163 168 189 212 324 369 407 413 421		

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST		
PHILHARMONIC	379		
PHILIPS	015 022 049 050 063 065 079 089 111 112 157 158 160 175 182 188 192 215 217 220 221 247 250 313 324 337 342 350 363 374 427		
PHOENIX	049 050 063 075 102 104 107 113 148 324 379 392 421		
PHONOLA	022 050 063 065 079 112 158 160 188 250 324 379		
PILOT	049 063		
PIONEER	049 063 074 172 182 209 218 227 307 421 427		
PIONIER	392 421		
PLANTRON	049 063 076 195		
PLAYSONIC	379		
POLICOM	074		
POPPY	195		
POWERPOINT	232		
PRANDONI-PRINCE	044 046 075 090 120 171 172 307 407 413		
PRECISION	379		
PREMIER	142		
PRIMA	076 195 307		
PRINCE	044 046 075 171		
PRINZ	102 185 416		
PROFEX	107 139 195		
PROFI-TRONIC	045 049 063		
PROLINE	030 049 102 112 191 366 436		
PROSONIC	049 063 085 149 151 195 225 379 421 431		
PROTECH	045 063 076 139 163 195 379 413 416		
PROVISION	049 063		
PYE	050 063 065 079 112 157 158 160 188 250		
PYMI	049 063 112 195 324		
QUADRA VISION	425		
QUASAR	045 046 068 075 099 155 413		
QUELLE	003 018 019 020 049 050 053 063 074 075 076 078 080 090 091 094 113 115 117 118 131		
BRAND NAME	CODE LIST		
QUELLE	139 146 147 150 153 155 172 195 206 235 244 245 246 247 254 301 319 320 340 341 379 406 408 413 416		
QUESTA	018		
RADIALVA	049 063 074 107 123		
RADIOLA	050 063 065 079 112 158 160 188 250 342		
RADIOMARELLI	045 046 047 062 063 065 104 105 150 168 324 413		
RADIONETTE	003 020 117 150		
RADIO SHACK	049 063		
RADIOTONE	049 063 076 163 195 421 426 431		
RAMK	341		
RANDT	029		
RANK	147 406		
RBM	341		
RBM(UK)	147		
RCA	190 218 436		
RECOR	049 063		
RECTILIGNE	049 063		
REDIFFUSION	018 059 105 139 171 172 307 343		
REDIFFUSION(UK)	150 162		
REDIFUSION	104 105		
REDSTAR	049 063		
REFLEX	049 063		
REVOX	049 063 421		
REX	036 040 063 071 079 095 107 110 171 210 236 242 243 305 307 323 338 413		
RFT	076 102 390 391 392 393 394 395 421		
RHAPSODY			
R-LINE	049 063		
ROADSTAR	031 049 063 076 163 195		
ROBOTRON	056 065 324		
RODEX	049 063		
ROTEL	302		
ROWSONIC	050		
ROYAL LUX	421 426		

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
RTF	056 065	SELECO	036 040 063 071 079 095 107 110 171 172 210 236 242 243 305 307 323 338 339 369
SABA	014 017 029 034 038 046 065 074 077 107 120 133 139 172 182 186 218 304 307 324 333 334 424 436	SENCORA	195
SACCS	121	SENTRA	123 139 141 195
SAGEM	006 380 435	SERINO	380 435
SAISHO	004 050 076 084 107 131 132 134 179 195 233 307 330 331 379	SHARP	018 094 143 170 190 206 214 302 362 364
SALORA	033 075 107 127 133 136 139 148 150 153 171 172 185 198 209 301 307 312 416 418 419	SHORAI	042 094
SAMBERS	045 046 068 075 090 120 155 336 407	SIAM	049 063
SAMSUNG	050 063 066 076 102 155 189 195 217 359 360 365 379 421	SIAREM	045 046 065 104 107 120 139 324
SANDRA	379	SICATEL	121
SANELA	411	SIEMENS	003 018 019 023 049 053 063 066 113 118 206 244 245 246 247 248 249 302 307
SANSUI	049 063 225	SIERA	050 063 065 079 112 158 160 188
SANTON	195	SIERRA	049 063 112
SANYO	003 018 020 041 049 050 056 063 065 102 107 117 131 143 189 195 198 201 206 209 302 320 325 331 351 379 391 408 421	SIESTA	421
SAVE	049 063	SILVA	049 063 379
SBR	063 112 157 158 192 313	SILVER	018 042 049 063 076 172
SCHAUB LORENZ	090 104 136 139 153 159 162 171 198 307 416 433	SINGER	045 047 049 063 065 104 195 324 369 413 425
SCHNEIDER	031 040 050 063 065 069 079 095 104 107 112 114 139 148 156 158 160 168 172 182 188 195 225 242 243 250 307 328 342 379 413 414 416 423	SINUDYNE	004 031 045 051 063 065 094 104 107 134 139 150 172 210 216 236 314 324 357 366 367 416
SCOTT	042 327	SKANTIC	307 418
SEARS	042	SKY	049 063
SEG	018 045 049 050 056 063 076 107 172 195 232 379 413	SOGERA	113
SEI	004 045 049 051 063 094 107 139 236 314 324 357 416	SOLAVOX	066 102 107 123 139 172 307
SEL SINUDYNE	250	SONITRON	209 379 421
		SONNECLAIR	049 063
		SONOKO	006 050 063 076 195 379
		SONOLOR	012 107 139 159 172 209 357 425
		SONTEC	049 063 094 421
		SONY	012 018 028 045 131 143 204 208 211 331 357 358 370
		SOUND & VISION	031 045 123
		SOUND WAVE	049 113 163

Device Code of Universal Remote Control (Europe)

TV			
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
SOUNDESIGN	042	TELECOR	049 063 107 123 242 379 423
SPECTRA	195	TELEFUNKEN	032 049 063 064 074 082 182 186 187 218 392 424 436
SSANGYONG	195	TELEFUSION	049 063
STANDARD	049 050 063 113 123 195 379	TELEGAZI	049 063 076 107 123 242
STARLIGHT	049 063 076 107 195	TELEMEISTER	049 063 113
STENWAY	006 031 123	TELESONIC	049 063
STERN	036 040 063 071 079 095 107 110 171 236 242 243 305 307 323 338	TELESTAR	049 063
STRATO	049 063 076 195	TELETECH	049 063 195 213 413
SUNKAI	049 063 094 123 134 179 191 232 314 367	TELETON	018 067 107 236 242 379 416
SUNSTAR	049 063 195 225 431	TELEVIDEON	050 075 104 107 113 148 379
SUNWOOD	049 063 195	TELEVISO	425
SUPERLA	379	TEMCO	094
SUPERTECH	049 063 123 195 379	TEMPEST	049 063 195
SUPRA	195	TENNESSEE	049 063
SUSMU	218	TENSAI	003 020 050 055 063 094 113 117 123 195 225 379 408 413
SUTRON	195	TETUNG	046
SWISSLINE	413	TEVION	049 063 195
SYDNEY	379	TEXET	050 195 379
SYTONG	425	THOMSON	008 010 017 024 029 034 049 063 064 074 134 147 174 182 186 218 230 234 304 309 333 334 415 424 436
TACTUS	106	THORN	049 053 063 103 106 141 158 218 222 321 329 408 409 411 419
TANDBERG	065 074 078 172 182 210 213 304	THORN-FERGUSON	032 073 074 076 080 082 103 121 158 306 319 321 322 328 329 357 358 364 375
TANDY	050 096 102 123 190 307 379 413	THRON	117
TASHIKO	018 050 107 143 177 192 201 379 419	TMK	143
TATUNG	049 050 063 102 106 111 120 131 200 253 331 379	TOKAI	049 063 102 107 195 213 379
TEAC	049 063 076 195 380 416 426	TOKYO	141 379
TEC	040 050 064 168 195 213 218 242 243 379 413	TOMASHI	006 031 123
TECH LINE	049 063 195	TOSHIBA	001 018 045 128 141 143 147 205 341 369 379 406
TECHICA	123	TOWADA	045 379 416
TECHNEMA	113	TOYODA	195
TECHNICS	099 315	TRAKTON	076
TEDELEX	379	TRANS CONTINENS	044 046 049 063 075 171 307 379
TEIRON	195		
TEKNIKA	042 327		
TELEAVIA	029 034 074 182 186 415 424		

Device Code of Universal Remote Control (Europe)

TV		TV	
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
TRANSONIC	049 063 380	WALTHAM	049 063 163 182 307 379 418
TRANSTEC	379	WATSON	049 063 107 113 123 195 244 245 246 423 431
TRIDENT	379	WATT RADIO	045 050 068 104 107 121 139 150 336 379 416
TRISTAR	123 364	WEGA	018 049 063 139 143 324
TRIUMPH	004 046 049 063 128 147 197 235 339 375	WEGA COLOR	065 088
UHER	049 063 069 080 090 113 147 148 163 236 242 307 392 407 414 421	WEGAVOX	195
ULTRAVOX	044 045 047 049 050 063 065 104 107 133 139 324 379 413	WELTBlick	063 113
UMA	305	WESTINGHOUSE	063 094
UNIC LINE	049 063 165	WESTON	168
UNITED	049 063	WHARFEDALE	049 063
UNIVERSUM	003 004 012 018 020 049 063 074 076 094 107 131 155 163 165 172 195 202 206 210 213 235 244 245 246 320 357 375 379 406 407 408 413 416 421 428 429 437	WHITE	045
UNIVOX	049 063 107 121 213 324 409 411	WHITE WESTINGHOUSE	049 050 063 113 213 379
UTAX	050	WINCO	426
VEGAVOX	163	WINDSTAR	006
VESTEL	049 063 107 125 364 379	WINTERNITZ	361
VEXA	063 195	XRYPTON	049 063
VICTOR	174	YAMISHI	006 049 063 123 379 380
VIDEO SYSTEM	049 063	YOKAN	049 063
VIDEOLIQUE	031 123 379	YOKO	049 050 063 076 123 195 379 413 421
VIDEO SYSTEM	049 063	YORX	123
VIDEOTECHNIC	113 379	ZANUSSI	036 040 063 071 079 095 110 171 236 305 307 323 338 379
VIDEOTON	107 418	ZOPPAS	036 040 071 079 110 171 307
VIDIKRON	045	VCR	
VIDTECH	018	ADELSOUND	078
VIPER	213	ADIBA	029
VISIOLA	379	ADYSON	029
VISION	049 063 113	AIWA	004 033 039 055 090 116
VISTAR	172 236	AKAI	028 053 061 090
VOLTEC	074	AKIBA	029
VORTEC	063	AKURA	029 090
VOXSON	049 063 065 090 163 171 307 324 407	ALBA	004 029 033 039 061 119 120
		ALLSTAR	065
		AMBASSADOR	061
		AMSTRAD	029 039 119
		ANITECH	029
		ANSONIC	078
		ARC EN CIEL	090

Device Code of Universal Remote Control (Europe)

VCR		VCR	
BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
ARISTONA	065 091	ELBE	036
ASA	055 065	ELCATECH	029
ASUKA	029 036 039 055 065	ELSAY	029
AUDIOTON	061	ELTA	029
AWA	053 055	EMERSON	009 029 039
BAIRD	015 039 090 104	ESC	021 061
BASIC LINE	029 061	ETZUKO	029
BESTAR	021 061	EUROPHON	061
BIRNKMANN	004	FENNER	061
BLAUPUNKT	001 002 052 065 091 137	FERGUSON	003 039 090 104
BLUE SKY	004 029 055	FIDELITY	029 039
BONDSTEC	029 061	FINLADIA	015 018 039 065
BOSCH	001	FINLUX	015 018 039 053 065
BRANDT	003 090	FIRST LINE	004 009 018 029 053
BRANDT ELECTRONIQUE	090	FISHER	008 015 036 061
BIRNKMANN	004	FRONTECH	061
BUSH	004 028 029 033 039 061 119 120	FUJITSU	039
CAPEHART	061	FUNAI	039
CARENA	065	GALAXI	039
CARREFOUR	009	GALAXY	039
CASIO	039	GBC	029 061
CATRON	061	GEC	065
CGE	039 090	GELOSO	029
CIMLINE	029	GENERAL	061
CLATRONIC	029 061	GENERAL TECHNIC	004
COMBITECH	033	GENEXXA	015
CONDOR	061	GOLDHAND	029
CONTINENTAL EDISON	090	GOODMANS	004 029 039 055 061 065
CRAIG	008	GRAETZ	015 090
CROWN	009 061	GRANADA	015 018 039 055 065 091
DAEWOO	009 061	GRANADA(UK)	018
DANSAI	029 055	GRANDIN	029 039 055 061
DAYTRON	061	GRUNDIG	002 003 004 065 091
DE GRAAF	015 018 039 065	HANSEATIC	055 065
DECCA	004 039 047 065 090	HANTOR	061
DENKO	029	HARMAN/KARDON	036
DIAMANT	055	HARWOOD	029
DIXI	078	HCM	029
DUAL	039 065 090	HIFIVOX	090
DUMONT	015 039 065	HINARI	029 033 072 078 090
DYNATECH	039	HISAWA	033
		HITACHI	015 018 039 065 078 090

Device Code of Universal Remote Control (Europe)

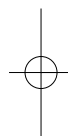
VCR

BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
HORNYPHONE	065	MEMOREX	008 015 039 055
HYPSON	029	MEMPHIS	029
IMPEGO	061	METZ	002 065 091
IMPERIAL	039	MGA	053
INGELEN	090	MICROMAY	004
INGERSOLL	078	MIGROS	039
INNO HIT	029 061	MINERVA	002
INTERBUY	029 055	MINOLTA	018
INTERFUNK	015 065	MITSUBISHI	047 053 065
INTERVISION	004 039 055	MTC	039
IRRADIO	029 055 065	MULTITECH	015 021 029 039 061
ITT	015 090	MURPHY	039
ITT-NOKIA	015 090	NAD	015
ITV	021 055 061	NAONIS	090
JVC	047 090	NEC	015 036 047 055 090
KAISUI	029	NECKERMANN	051 052 065 081 090 091
KENDO	004 029 055	NESCO	029 039
KENWOOD	036 047 090	NIKKAI	029 061
KIMARI	008	NOGAMATIC	090
KNEISSEL	004 055	NOKIA	015 018 065 090
KORPEL	029	NORDMENDE	003 014 020 039 047 090
KRIESLER	091	OCEANIC	015 039 065 090
KUBA	008	OKANO	004 021 028 029
KYOTO	029	ORION	004 033 078
LEYCO	029	ORSON	039
LG(GOLDSTAR)	036 039 055	OSAKI	029 039 055
LIFETEC	004	OTTO VERSAND	051 052 065 081
LLOYD	039	PALLADIUM	029 055 078 090 091
LOEWE	055 065 078 091	PALSONIC	029 039
LOEWE OPTA	091	PANASONIC	089 137
LOGIK	029 078	PATHE CINEMA	053 078
LUMATRON	021	PATHE' MARCONI	090
LUXOR	008 015 029 053	PENTAX	018
LXI	055	PERDIO	039
M ELECTRONIC	036 039 055	PHILCO	029 036
MAGNAVOX	065	PHILIPS	065 091
MANESTH	009 029 065	PHONOLA	065 091
MARANTZ	036 065 091	PIONEER	018 047 065
MARK	061	PORTLAND	061
MATSUI	004 033 039 055 078	PRINZ	039
MEDIATOR	065	PROFITRONIC	065
MEDION	004 033	PROLINE	003 039

Device Code of Universal Remote Control (Europe)

VCR

BRAND NAME	CODE LIST	BRAND NAME	CODE LIST
PROSONIC	039	SOUNDWAVE	055
PROTECH	065	SSANGYONG	029
PYE	065 091	STANDARD	021
QUELLE	029 055 065 091	STARLITE	015 055
RADIOLA	065 091	STERN	090
RANK	090	STS	018
REALISTIC	008 015 039	SUNKAI	004
REX	090	SUNSTAR	039
RFT	029 061	SUNTRONIC	039
ROADSTAR	029 055	SUNWOOD	029
ROYAL	029	SUPRA	055
SABA	003 009 012 014 047 090	SYLVANIA	039 053
SAISHO	004 078 090	SYMPHONIC	029 039 053
SALORA	015 053	TAISHO	078
SAMSUNG	009 067	TASHIKO	039 055 065
SAMURAI	061	TATUNG	004 039 053 065 090
SANSUI	004 029 047 090	TEAC	039 055 065 090
SANWA	078	TEC	029 061
SANYO	008 015 047	TECHNI SAT	004
SAVILLE	021 033	TEKNIKA	039
SBR	065	TELEAVIA	090
SCHAUB LORENZ	015 039 090	TELEFUNKEN	003 090
SCHNEIDER	029 039 055 065 091	TELETECH	029 039
SEG	029	TEMPEST	061
SEI-SINUDYNE	065 078	TENOSAL	029
SELECO	055 061 090	TENSAI	029 039 055 078
SEMIVOX	009	TEVION	004
SENTRA	029 061	THOMSON	003 020 047 090
SETRON	029	THORN	015 055 090
SHARP	055	THORN-FERGUSON	090 104
SHINTOM	015 029	TOKAI	015 029 055 090
SHIVAKI	055	TOKIWA	029
SHORAI	078	TOPLINE	004
SIEMENS	002 015 055 065 091	TOSHIBA	009 053 065 090
SIERA	065 091	TOWADA	029
SILVA	055	TRAKTON	061
SINUDYNE	065 078	TVA	061
SOLAVOX	061	UHER	055
SONITRON	008	UNITED QUICK STAR	021
SONNECLAIR	029	UNIVERSUM	002 004 039 051 052 055 065 081 091
SONTEC	055	VICTOR	047
SONY	039 051 052 081		



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